

## CLAIMS

1. A silicon based thin film solar cell, wherein a conducted type silicon based low refractive index layer and a silicon based interface layer are disposed in this order on a backside of a photoelectric conversion layer observed from a light incident side.

2. The silicon based thin film solar cell according to Claim 1, wherein the silicon based low refractive index layer has a refractive index not more than 2.5 at a wavelength of 600 nm.

3. The silicon based thin film solar cell according to Claim 1 and Claim 2, wherein a most abundantly existing constituent element, excluding silicon, in the silicon based low refractive index layer is not less than 25 atomic %.

4. The silicon based thin film solar cell according to claim 3, wherein the most abundantly existing constituent element is oxygen.

5. The silicon based thin film solar cell according to Claim 1 to Claim 4, wherein the silicon based low refractive index layer has a thickness of not less than 300 angstroms.

6. The silicon based thin film solar cell according to Claim 1 to Claim 5, wherein the silicon based low refractive index layer comprises a crystalline silicon component in the layer.

7. The silicon based thin film solar cell according to Claim 1 to Claim 6, wherein the silicon based interface layer has a thickness not more than 150 angstroms.

8. The silicon based thin film solar cell according to Claim 7, wherein the silicon based interface layer comprises a crystalline silicon component in the layer.